

WHAT IS CLAIMED IS:

1. A common-mode filter comprising:

a magnetic or non-magnetic drum type core including a core portion, and a pair of flange portions disposed on opposite sides of said core portion so as to be integrated with said core portion;

5 electrodes provided on said pair of flange portions of said drum type core; and

at least two wires wound on said core portion of said drum type core and having ends connected to said electrodes

10 respectively,

wherein each of said flange portions of said drum type core has a groove between corresponding two of said electrodes, and a separation protrusion for separating said groove into two;

said wires are wound on said core portion of said drum type core in such a distributed winding manner that an inter-wire distance (a) between said wires and a winding pitch (b) between adjacent turns of each of said wires are provided; and

said wires are one-by-one led out through said grooves while separated by said separation protrusions so that said ends of said wires are connected to said electrodes respectively.

2. A common-mode filter according to Claim 1, wherein further comprising a magnetic or non-magnetic plate-shaped core fixed between top surfaces of said pair of flange portions of said drum type core.

3. A common-mode filter according to Claim 1, wherein further comprising a composite magnetic material provided for bridging over a space between top surfaces of said pair of flange portions of said drum type core.

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4. A common-mode filter according to any one of Claims 1 through 3, wherein said drum type core is made of ferrite containing 40 mol% to 49.8 mol% of Fe_2O_3 , 10 mol% to 33 mol% of ZnO , 2 mol% to 10 mol% of CuO , 1 mol% or less of Mn_2O_3 , and
10 the residual part of NiO and further containing 0.03 wt% to 0.5 wt% of SiO_2 .

5. A common-mode filter comprising:

a magnetic or non-magnetic drum type core including a core
15 portion, and a pair of flange portions disposed on opposite sides of said core portion so as to be integrated with said core portion;

electrodes provided on said pair of flange portions of said drum type core; and

at least two wires wound on said core portion of said drum
20 type core and having ends connected to said electrodes respectively,

wherein said core portion of said drum type core has a plurality of positioning convex or concave portions formed for positioning said wires while keeping the pitch between said wires
25 constant.

6. A common-mode filter according to Claim 5, wherein further comprising a magnetic or non-magnetic plate-shaped core fixed between top surfaces of said pair of flange portions of
5 said drum type core.

7. A common-mode filter according to Claim 5, wherein further comprising a composite magnetic material provided for bridging over a space between top surfaces of said pair of flange
10 portions of said drum type core.

8. A common-mode filter according to any one of Claims 5 through 7, wherein said drum type core is made of ferrite containing 40 mol% to 49.8 mol% of Fe_2O_3 , 10 mol% to 33 mol%
15 of ZnO , 2 mol% to 10 mol% of CuO , 1 mol% or less of Mn_2O_3 , and the residual part of NiO and further containing 0.03 wt% to 0.5 wt% of SiO_2 .